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Brush Management

Chapter 14 Article 2 Division 4

The reference to the CBC and CRC regulations for wildfire protection needs to be updated and refer to the Building Regulations and Residential Building Regulations that adopt and amend the State Fire Marshal's additional building standards protecting buildings and structures from wildfire.

§142.0412 Brush Management

Brush management is required in all base zones on publicly or privately owned *premises* that are within 100 feet of a *structure* and contain native or naturalized vegetation.

Subsection (a) through (h) no change.

- (i) In consideration of the topography, existing and potential fuel load, and other characteristics of the site related to fire protection, the Fire Chief may modify the requirements of this Section, and where applicable with the approval of the Building Official, may require building features for fire protection in addition to those required in accordance with Chapter 14, Article 5, Division 7 and Chapter 14 Article 9 Division 3 (Chapter 7A of the California Building Code as adopted and amended) if the following conditions exist:
 - (1) In the written opinion of the Fire Chief, based upon a fire fuel load model report conducted by a certified fire behavior analyst, the requirements of Section 142.0412 fail to achieve the level of fire protection intended by the application of Zones One and Two; and
 - (2) The modification to the requirements achieves an equivalent level of fire protection as provided by Section 142.0412, other regulations of the Land Development Code, and the minimum standards contained in the Land Development Manual; and

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(3) The modification to the requirements is not detrimental to the public health, safety, and welfare of persons residing or working in the area.

Remainder of Section not changed

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Ch 14 Article 5 Division 1

Art 05 Div 01: Adoption and Applicability of the Building Regulations

Adopt the 2010 CBC requires extensive updates due to new additions and modifications.

§145.0101 Purpose of the Building Regulations

- (a) The purpose of the Building Regulations is to establish minimum standards to safeguard life or limb, health, property and public welfare and to satisfy the purpose of the 2007–2010 California Building Code as provided in Section 101.3 of the 2007–2010 California Building Code.
- (b) The purpose of this section is not to create or otherwise establish or designate any particular class or group of persons who will or should be especially protected or benefitted by the terms of this section.

Section 145.0102 no change

§145.0103 Adoption of the 2007 2010 California Building Code

(a) The 2007-2010 California Building Code, published and amended by the California Building Standards Commission [BSC], as amended by the State Department of Housing and Community Development [HCD 1, HCD 1/AC]; the Division of the State Architect/Access and Compliance [DSA/AC]; the State Office of Statewide Health Planning and Development [OSHPD3]; and the State Fire Marshal [SFM] is adopted by reference, except as otherwise provided in this Article of the San Diego

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Municipal Code, Divisions 2 through 36. A copy of the 2007-2010 California Building Code is on file in the office of the City Clerk as Document No. OO-19726-XXXX.

- (b) When reference is made to the California Building Code, it shall be the 2007-2010 California Building Code, California Code of Regulations Title 24, Part 2, as published by the California Building Standards Commission and adopted by the City of San Diego.
- (c) Each of the regulations, provisions, conditions, and terms of the 2007

 2010 California Building Code is made a part of this article as if fully set forth in this article except as otherwise provided in Divisions 2 through 36.
- (d) Numbering of sub-sections in Division 2 through 35 of this Article is cross-referenced to sections in the 2007-2010 California Building Code.
- (e) The adoption of the 2007-2010 California Building Code, shall in no way limit, prohibit, impede, or prevent the City Council from adopting ordinances limiting or preventing the issuance of any type, number, or geographical distribution of permits for construction or demolition of any facility for which a permit is required.
- (f) Application. The amendments made by the state agencies to the model code and incorporated into the California Building Code are applicable only to those occupancies or uses which the state agency making the amendments is authorized to regulate, as listed in Sections 101.3-1.1.3, 1.2, 1.8, 1.9,1.10.3, and 1.11 102, 108, 109.1 and 110.3 of the 2007-2010 California Building Code. The Building Official shall only enforce those amendments made by the following state agencies:
 - (1) California Building Standards Commission.

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- (2) The Department of Housing and Community Development for accessibility in privately funded housing and all housing (HCD 1 and HCD 1/AC).
- (3) Division of the State Architect, Access Compliance for accessibility in commercial buildings and publicly funded housing (DSA/AC).
- (4) Office of the State Fire Marshal (SFM).
- (5) Office of Statewide Health, Planning and Development requirements for licensed clinics and any freestanding building under a hospital license where outpatient clinical services are provided (OSHPD3).
- (6) California Energy Commission energy efficiency standards (CEC).

§145.0104 Portions of the 2007 2010 California Building Code Not Adopted by the City of San Diego

The following portions of the 2007 2010 California Building Code are not adopted by the City of San Diego:

- (a) Chapter 1, Division II "Scope and Administration"
- (b) Chapter 15, Roof Assemblies and Roof Structures, Table 1505.1 and Section 1510.4.
- (b) (c) Chapter 29, Plumbing Systems.

§145.0105 Modifications to the 2007 2010 California Building Code Adopted by the City of San Diego

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The following sections or Sub-sections of the 2007 2010 California Building Code have been modified by the City of San Diego:

- (a) Chapter 7A Section 701A.3.1, 702A, and 704A.1.5.
- (b) Chapter 15, Roofing and Roof Structures, Section 1505.1 General,Section 1505 Fire Classification, Section 1507.8 Wood Shingles,Section 1507.9 Wood Shakes, and Section 1510.1 General.
- (c) Chapter 33, Demolition, Section 3303.4.

§145.0106 Additions to the 2007 2010 California Building Code Adopted by the City of San Diego

The following sections and Sub-sections have been added to the 2007 2010 California Building Code by the City of San Diego:

- (a) Chapter 2, Definitions, Section 202 Live/Work Dwelling
- (b) Chapter 7A, Sections 710A.1.1, 701A.4, 701A.1.6, 702A, 704A.3.2.2.1, 704A.6, 704A.7, and 704A.8.
- (b)(c) Chapter 15, Roofing and Roof Structures, Sub-Sections 1505.1.5 and 1505.1.6, Sections 1507.16 and Sub-sections 1510.1.1 through 1510.1.5 and have been added to Reroofing.
- (e)(d) Chapter 16, Structural Design, Sub-sections 1613.6.3.1, 1613.6.3.2 16138.1, 1613.6.3.3 and 1613.6.3.416138.2.
- (d)(e) Chapter 17, Structural Tests and Special Inspections, Section 1705.5.
- (e)(f) Chapter 18, Soils and Foundations, Section 1802 Foundation and Soils Investigations, Sub-sections 1802.2.8 Required Geologic Investigation

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including 1802.2.8.1 through 1802.2.8.4, Sub-section 1805.2.4, and Table 145.1802.

- (f) Chapter 19, Concrete, Sub-section 1908.1.17.
- (g) Chapter 31, Special Construction, Section 3109 Swimming Pool Enclosures and Safety Devices, Sub-sections 3109.1.1, 3109.1.2, and 3109.4.1.10.
- (h) Chapter 32, Encroachments into the Public Right-of-Way, Section 3203 Entrance Canopies, Sections 3203.1 through 3203.6.
- (i) Chapter 33, Safeguards During Construction, Section 3303.7, Demolition and Removal Regulations.
- (j) Chapter 34, Existing Structures, Section 3403 Additions, Alterations or Repairs, Sections 3403.5 and 3403.6.
- (k) Chapter 37, Archaic Materials and Methods of Construction.

§145.0107 Adoption of Appendices to the 2007 2010 California Building Code

The following Appendix Chapters of the 2007 2010 California Building Code are adopted by the City of San Diego:

- (a) Appendix chapters specifically adopted by a State agency listed in Section 145.0103 and identified in the adoption matrices of the 2007 California Building Code.
- (b) Appendix Chapter C, Group "U" Agricultural Buildings.
- (c) Appendix Chapter I, Patio Covers.

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\$145.0108 Adoption of 2007 2010 California Building Code Chapter 1, "Scope and Administration Division I California Administration" "General Code Provisions"

(California) Chapter 1 of the 2007 2010 California Building Code "General Code Provisions" "Scope and Administration Division I California Administration" is adopted pursuant to Section 145.0103 (a) without change.

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Art 05 Div 02: Additions and Modifications to Chapter 2 of the 2010 California Building Code

Update and delete code edition. Add definition for live/work dwelling unit to differentiate from live work quarters.

§145.0201 Local Modifications and Additions to Chapter 2 Definitions of the 2007 California Building Code

Chapter 2 of the 2007 California Building Code has been adopted by reference with additions pursuant to Section 145.0103 145.0106 of the Land Development Code.

§145.0202 Other Definitions

- (a) Definitions in Chapter 11, Article 3, Division 1 of the Land Development Code do not apply to the regulations in Chapter 14 Article 5 Divisions 3 through 36 of the Land Development Code where they conflict with the definitions contained in the 2007 California Building Code.
- (b) Definitions in Divisions 16 and 19 of Chapter 14 Article 5 only apply where used as a part of additions to the 2007 California Building Code and associated referenced standards.
- (c) Section 202 is adopted with additions as follows. Local Additions and

 Modifications to Section 202 "Definitions" of the California Building Code. The

 following definition is added to Section 202 of the California Building

 Code.
 - (1) LIVE WORK UNIT. A dwelling unit in which a portion is used for other than living purposes subject to the limitations set forth in

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Section 419 "LIVE/WORK UNITS" in the California Building
Code as adopted and amended by the City of San Diego. Live
Work Unit shall not mean Live/Work Quarters as defined and
regulated in Section §141.0311 of the Land Development Code.

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Art 05 Div 03: Additions and Modifications to Chapter 3 of the 2010 California Building Code

Delete code edition.

Division 3: Additions and Modifications to Chapter 3 of the

2007-California Building Code

§145.0301 Local Modifications and Additions to Chapter 3 "Use and Occupancy Classification" of the 2007 California Building Code

Chapter 3 of the 2007 California Building Code has been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

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Art 05 Div 04: Additions and Modifications to Chapter 4 of the 2010 California Building Code

- 1. Modify live work requirements to address omission by HCD where plumbing is not addressed. Delete code edition.
- 2. Delete code edition.

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Division 4: Additions and Modifications to Chapter 4 of the

2007 California Building Code

§145.0401 Local Modifications and Additions to Chapter 4 "Special Detailed Requirements Based on Use and Occupancy" of the 2007 California Building Code

Chapter 4 of the 2007 California Building Code has been adopted by reference without with additions change pursuant to Section 145.0103 145.0106 of the Land Development Code.

§145.0419 Local Modifications and Additions to Section 419 "Live/Work Units" of the California Building Code

Section 419 is adopted with additions. Add Section 419.9 as follows.

(a) 419.9 Plumbing. The applicable requirements of the California Plumbing

Code shall apply to each area within the live/work unit for the function

within that space.

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Art 05 Div 05: Additions and Modifications to Chapter 5 of the 2010 California Building Code

Delete code edition.

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Division 5: Additions and Modifications to Chapter 5 of the

2007 California Building Code

§145.0501 Local Modifications and Additions to Chapter 5 "General Building Heights and Areas" of the 2007 California Building Code

Chapter 5 of the 2007 California Building Code has been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

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Art 05 Div 06: Additions and Modifications to Chapter 6 of the 2010 California Building Code

Delete code edition.

Article 5: Building Regulations

Division 6: Additions and Modifications to Chapter 6 of the

-2007 California Building Code

§145.0601 Local Modifications and Additions to Chapter 6 "Types of Construction" of the 2007-California Building Code

Chapter 6 of the 2007 California Building Code has been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

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Art 05 Div 07: Additions and Modifications to Chapter 7 of the 2010 California Building Code (New includes Ch7A)

- 1. Delete code edition.
- 2. Update SDMC due to Ch 7A rewrite.

§145.0701 Local Modifications and Additions to Chapter 7 "Fire-Resistance Rated Construction" of the 2007 California Building Code

- (a) Chapter 7 of the 2007 California Building Code has been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.
- (b) Chapter 7A of the 2007 California Building Code has been adopted by reference with modifications pursuant to Section 145.0105 and additions pursuant to Section 145.0106 of the Land Development Code.

§145.0702 Local Additions and Modifications to Section 701A "Scope, Purpose, and Application" of the 2007 California Building Code

Section 701A.3 Exception 5 and sub-section 701A.6 have been Sub-sections 701A.1.1 and 701A.4 have been added as follows pursuant to Section 145.0106 of the Land Development Code and Section 701A.3.1 has been modified as follows pursuant to Section 145.0105 of the Land Development Code:

- (a) 701A.1.1 The building standards in this Chapter impose requirements additional to any other applicable building and fire regulations, including brush management regulations.
- (b) 701A.4 Exemptions. The regulations in this Section of this Division do not apply to the following:
 - (1) Fences, playhouses, gazebos, and palapas located outside of brush management zones as defined in Section 142.0412.
- (a) 701A.3 Exceptions
 - 5. Fences.

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- (b) 701A.6 The building standards in this Chapter are in addition to any other applicable building and fire regulations, including brush management regulations.
 - (c) Section 701A.3.1 has been adopted by reference and is modified as follows:
 - (1) 701A.3.1 Alternates for materials, design, tests, and methods of construction. The Building Official may approve the use of alternative materials, designs or methods of construction pursuant to Section 129.0109 of the Land Development Code.
 - (2) 701A.3.1.2 Modifications. The Building Official may modify the provisions of Chapter 7A of the California Building Code for site specific conditions in accordance with Section 129.0104(a)(5) of the Land Development Code. When required by the Building Official, a fire protection plan shall be submitted in accordance with the California Fire Code, Chapter 47.

701A.3. Application. New buildings located in any Fire Hazard Severity Zone or any Wildland-Urban Interface Fire Area designated by the enforcing agency constructed after the application date shall comply with the provisions of this chapter.

Exceptions:

- 1. Buildings of an accessory character classified as a Group U occupancy and not exceeding 120 square feet in floor area, when located at least 30 feet from an applicable building.
- 2. Buildings of an accessory character classified as Group U occupancy of any size located least 50 feet from an applicable building.
- 3. Buildings classified as a Group U Agricultural Building, as defined in Section 202 of this code (see also Appendix C Group U Agricultural Buildings), when located at least 50 feet from an applicable building.
- 4. Additions to and remodels of buildings originally constructed prior to the applicable application date.
- 5. Fences.

701A.6 The building standards in this Chapter are in addition to any other applicable building and fire regulations, including brush management regulations.

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- §145.0703 Local Additions and Modifications to Section 702A "Definitions" <u>and Section</u>
 703A "Standards of Quality" of the 2007-California Building Code
 - (a) Section 702A has been adopted by reference with modifications pursuant to Section 145.0105, and additions pursuant to Section 145.0106 of the Land Development Code as follows:
 - (1) (a) Ancillary building shall mean <u>Aaccessory building</u> and ancillary structure shall mean <u>accessory structure</u> as defined in Section 113.0103 of the Land Development Code.
 - (2) (b) Local Agency Very High Fire Hazard Severity Zone shall mean the Very High Fire Hazard Severity Zones as designated on the Very High Fire Hazard Severity Zone Map – Local Responsibility Areas adopted pursuant to Section 55.5001 of the Municipal Code.
 - (b) Section 703A.6 has been adopted by reference with additions pursuant to Section 145.0106 of the Land Development Code as follows:
 - (1) 701A.6.1 Alternates for materials, design, tests, and methods of construction. The Building Official may approve the use of alternative materials, designs or methods of construction pursuant to Section 129.0109 of the Land Development Code.
 - (2) 701A.6.2 Modifications. The Building Official may modify the provisions of Chapter 7A of the California Building Code for site-specific conditions in accordance with Section 129.0104(a)(5) of the Land Development Code. When required by the Building Official, a fire protection plan shall be submitted in accordance with the California Fire Code, Chapter 47.

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§145.0704 Local Additions and Modifications to Section 704A.1 "Roofing" of the 2007 California Building Code

§145.0705 Local Additions and Modifications to Section 705A "Roofing" of the California Building Code

Sub-section 704A.1.5 Section 705A.4 has been adopted by reference with modifications-and Sub-section 701A.1.6 705A.4.1 has been added pursuant to Section 145.0105 and 145.0106 of the Land Development Code.

- (a) 704A.1.5 705A.4 Roof Gutters and Downspouts. Roof gutters. Roof gutters shall be provided with the means to prevent the accumulation of leaves and debris in the gutter. All roof gutters and downspouts shall be constructed of non-combustible materials.
- (b) 701A.1.6 705A.4.1 Drip edge flashing. When drip edge flashing is used at the free edges of roofing materials, it shall be non-combustible.

705A.4 Roof Gutters and Downspouts. Roof Gutters. Roof gutters shall be provided with the means to prevent the accumulation of leaves and debris in the gutter. All roof gutters and downspouts shall be constructed of non-combustible materials.

705A.4.1 Drip edge flashing. When drip edge flashing is used at the free edges of roofing materials, it shall be non-combustible.

§145.0705 Local Additions and Modifications to Section 704A.3 "Exterior Walls" of the 2007 California Building Code

§145.0706 Local Additions and Modifications to Section 704A.4 706A "Materials, systems, and Methods of Construction Vents" of the 2007 California Building Code

Sub-section 704A.6 706A.4, 704A.7 and 704A.8 have <u>has</u> been added as follows pursuant to Section 145.0106 of the Land Development Code.

(a) 704A.6 706A.4 Additional exterior wall, roof, and foundation ventilation opening requirements.

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- (1) Individual ventilation openings shall not exceed 144 square inches.
- (2) All ventilation openings shall be covered with non-combustible corrosion-resistant mesh. Mesh openings shall be ¼-inch.
- (2) (3) Ventilation openings on structures located immediately adjacent to Brush Management Zone One, as defined in Section 142.0142 of the Land Development Code, shall not be directed toward Brush Management Zones as defined in Section 142.0142 of the Land Development Code.
- (3) (4) Roof vents, dormer vents, gable vents, foundation ventilation openings, ventilation openings in vertical walls, or other similar ventilation openings shall be louvered and covered with ¼-inch, noncombustible, corrosion resistant metal mesh as is required in Section 706A.2, or other approved material that offers equivalent protection.
- (4) (5) Turbine attic vents shall be equipped to allow one-way direction rotation only and shall not free spin in both directions.
- (5) (6) Ventilation openings protected with vent openings that resists the intrusion of flame and embers, and which are listed by the State Fire Marshall, are exempt from complying with Sub-sections 1 and 3 2 of Section 145.0706(b).
- (b) 704A.7 Spark arrester. All structures having any chimney, flue, or stovepipe shall be equipped with an approved spark arrester if the

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chimney, flue, or stovepipe is attached to any fireplace, stove, barbecue, or other solid or liquid fuel burning equipment or device.

(c) 704A.8 Skylights. Glazing materials used in skylights, roofs, and sloped walls on buildings located within 300 feet, in any direction, of the boundary between Brush Management Zones One and Two as defined in Section 142.0412 of the Land Development Code, shall be tempered glass or multilayered glass.

<u>\$145.0708</u> Local Additions and Modifications to Section 708A "Exterior Windows and Doors" of the California Building Code

- (a) Sub-section 704A.3.2.2.1 708A.2.2.1 has been added as follows pursuant to Section 145.0106 of the Land Development Code.
 - (1) 704A.3.2.2.1 708A.2.2.1 Vinyl window reinforcing. Glazing frames made of vinyl materials shall have welded corners, metal reinforcement in the interlock area, and be certified to the most current edition of ANSI/AAMA/NWWDA 101/I.S.2 structural requirements.

706A.4 Additional exterior wall, roof, and foundation ventilation opening requirements.

- (1) <u>Individual ventilation openings shall not exceed 144 square inches.</u>
- (2) Ventilation openings on structures located immediately adjacent to Brush Management Zone
 One, as defined in Section 142.0142 of the Land Development Code, shall not be directed
 toward Brush Management Zones as defined in Section 142.0142 of the Land Development
 Code.
- (3) Roof vents, dormer vents, gable vents, foundation ventilation openings, ventilation openings in vertical walls, or other similar ventilation openings shall be louvered and covered with mesh as is required in Section 706A.2, or other approved material that offers equivalent protection.
- (4) Turbine attic vents shall be equipped to allow one-way direction rotation only and shall not free spin in both directions.
- (5) Ventilation openings protected with vent openings that resists the intrusion of flame and embers, and which are listed by the State Fire Marshall, are exempt from complying with Subsections 1 and 3 of Section 145.0706(b).

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<u>S145.0711</u> Local Additions, Section 711A "Additional Building Standards for Buildings Located in the Local Agency Very High Fire Hazard Severity Zone" to Chapter 7A of the California Building Code

Section 711A.1 and 711A.2 have been added as follows to Chapter 7A pursuant to Section 145.0106 of the Land Development Code.

- (a) 711A.1 Spark arrester. All structures having any chimney, flue, or stovepipe shall be equipped with an approved spark arrester if the chimney, flue, or stovepipe is attached to any fireplace, stove, barbecue, or other solid or liquid fuel burning equipment or device.
- (b) 711A.2 Skylights. Glazing materials used in skylights, roofs, and sloped walls on buildings located within 300 feet, in any direction, of the boundary between Brush Management Zones One and Two as defined in Section 142.0412 of the Land Development Code, shall be tempered glass or multilayered glass.

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Art 05 Div 08: Additions and Modifications to Chapter 8 of the 2010 California Building Code

Delete code edition.

Article 5: Building Regulations

Division 8: Additions and Modifications to Chapter 8 of the

-2007 California Building Code

§145.0801 Local Modifications and Additions to Chapter 8 "Interior Finishes" of the 2007-California Building Code

Chapter 8 of the 2007 California Building Code has been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

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Art 05 Div 09: Additions and Modifications to Chapter 9 of the 2010 California Building Code

Delete code edition.

Article 5: Building Regulations

Division 9: Additions and Modifications to Chapter 9 of the

-2007 California Building Code

§145.0901 Local Modifications and Additions to Chapter 9 "Fire Protection Systems" of the 2007 California Building Code

Chapter 9 of the California Building Code has been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

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Art 05 Div 10: Additions and Modifications to Chapter 10 of the 2010 California Building Code

- 1. Delete code edition.
- 2. Add an amendment based on approved code change E110 09/10 for aisle widths. I and R occupancies added to the scope of the approved IBC 2012 code change since aisles do not occur in dwellings or dwelling units and in care facilities. Additionally an exception has been added for non-employee areas. The CBC does not address minimum aisle widths in F and S occupancies amongst others.

§145.1001 Local Modifications and Additions to Chapter 10 "Means of Egress" of the 2007 California Building Code

Chapter 10 of the 2007 California Building Code has been adopted by reference without additions-change pursuant to Section 145.0103 145.0106 of the Land Development Code.

§145.1017 Local Modifications and Additions to Section 1017 "Aisles" of the California Building Code

Section 1017 of the California Building Code has been adopted with additions pursuant to Section 145.0106 of the Land Development Code. Add Section 1017.5 as follows.

- (a) 1017.5 Aisles in other than Groups A, B, M, I and R. In other than Group A, B, M, I and R occupancies, the minimum clear aisle width shall be determined by Section 1005.1 for the occupant load served, but shall not be less than 36 inches (914 mm).
 - (1) Exception: Nonpublic aisles serving less than 50 people and not required to be accessible by Chapter 11B need not exceed 28 inches (711 mm) in width.

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Art 05 Div 11: Additions and Modifications to Chapter 11 of the 2010 California Building Code

Delete code edition.

Article 5: Building Regulations

Division 11: Additions and Modifications to Chapter 11 of the

2007-California Building Code

§145.1101 Local Modifications and Additions to Chapter 11 "Accessibility" of the 2007 California Building Code

Chapters 11A and 11B of the 2007 California Building Code have been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

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Art 05 Div 12: Additions and Modifications to Chapter 12 of the 2010 California Building Code

- 1. Add attic ventilation code change G146- 09/10.
- 2. Delete code edition.

§145.1201 Local Modifications and Additions to Chapter 12 "Interior Environment" of the 2007 California Building Code

Chapter 12 of the 2007-California Building Code has been adopted by reference without modifications and additions change pursuant to Section 145.0103

Sections 145.0105 and 145.0106 of the Land Development Code.

§145.1203 Local Modifications and Additions to Section 1203 "Ventilation" of the California Building Code

Section 1203.2 of the California Building Code has been adopted with additions and modifications pursuant to Sections 145.0105 and 145.0106 of the Land Development Code as follows.

- (a) Modify Section 1203.2 by adding an exception as follows.
 - (1) Exception: Attic ventilation shall not be required when determined not necessary by the Building Official due to atmospheric or climatic conditions.

1203.2 Attic spaces. Enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof framing members shall have cross ventilation for each separate space by ventilating openings protected against the entrance of rain and snow. Blocking and bridging shall be arranged so as not to interfere with the movement of air. A minimum of 1 inch (25 mm) of airspace shall be provided between the insulation and the roof sheathing. The net free ventilating area shall not be less than 1/300 of the area of the space ventilated, with 50 percent of the required ventilating area provided by ventilators located in the upper portion of the space to be ventilated at least 3 feet (914 mm) above eave or cornice vents with the balance of the required ventilation provided by eave or cornice vents.

Exception: Attic ventilation shall not be required when determined not necessary by the Building Official due to atmospheric or climatic conditions.

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Art 05 Div 13: Additions and Modifications to Chapter 13 of the 2010 California Building Code

No changes. Delete code edition.

Article 5: Building Regulations

Division 13: Additions and Modifications to Chapter 13 of the

-2007 California Building Code

§145.1301 Local Modifications and Additions to Chapter 13 "Energy Efficiency" of the 2007 California Building Code

Chapter 13 of the 2007-California Building Code has been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

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Art 05 Div 14: Additions and Modifications to Chapter 14 of the 2010 California Building Code

No changes. Delete code edition.

Article 5: Building Regulations

Division 14: Additions and Modifications to Chapter 14 of the

-2007 California Building Code

§145.1401 Local Modifications and Additions to Chapter 14 "Exterior Walls" of the 2007-California Building Code

Chapter 14 of the 2007 California Building Code has been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

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Art 05 Div 15: Additions and Modifications to Chapter 15 of the 2010 California Building Code (Updated)

Ch 15 has some minor changes and roofing assembly term changed. No changes required. Correct error in referenced ASTM standard.

§145.1501 Local Modifications and Additions to Chapter 15 "Roof Assemblies and Roof Top Structures" of the 2007 California Building Code

- (a) Chapter 15 of the 2007-California Building Code has been adopted by reference with additions and modifications pursuant to Sections 145.0105 and 145.0106 of the Land Development Code.
- (b) Sections 1501 through 1504 and Sections 1505 (except for Table 1505.1), 1506, 1508 and 1509 have been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.
- (c) Sections 1505.1, 1507.8 and 1507.9 have been adopted by reference with modifications pursuant to Section 145.0105 of the Land Development Code.
- (d) Table 1505.1 has not been adopted by reference by the City of San Diego pursuant to Section 145.0105 of the Land Development Code.

§145.1505 Local Additions and Modifications to Section 1505 "Fire Classification" of the 2007 California Building Code

- (a) Section 1505.1 has been adopted by reference and modified as follows pursuant to Section 145.0105 of the Land Development Code:
- (b) 1505.1 Roof assemblies shall be divided into the classes defined below.
 Class A, B and C roof assemblies and roof coverings required to be listed by this section shall be tested in accordance with ASTM E 109 ASTM

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<u>E108</u> or UL 790. In addition, fire-retardant-treated wood roof coverings shall be tested in accordance with ASTM D 2898.

- (1) Exception: Skylights and sloped glazing that comply with Chapter 24 or Section 2610 of the 2007 California Building Code.
- (c) Sections 1505.1.5 and 1505.1.6 have been added as follows pursuant to Section 145.0106 of the Land Development Code:
 - (1) 1505.1.5. All newly constructed roofs shall be a Class "A" roofing roof assembly.
 - (2) 1505.1.6. The entire roof shall be a Class "A" roofing roof assembly where a building addition is more than twenty-five percent of the original floor area of the building.

§145.1507 Local Additions and Modifications to Section 1507 "Requirements for Roof Coverings" of the 2007 California Building Code

- (a) Sections 1507.8 and 1507.9 have been modified as follows pursuant to Section 145.0105 of the Land Development Code:
 - 1507.8 Wood shingles. Wood shingles are not permitted, except as provided in State Historical Building Code California Historical Building Code section Section 8-408 and Section 145.1510.
 - (2) 1507.9 Wood shakes. Wood shakes are not permitted, except as provided in State Historical Building Code California Historical Building Code section Section 8-408 and Section 145.1510.
- (b) Section 1507.16 has been added as follows pursuant to Section 145.0106 of the Land Development Code:

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1507.16. Roofing Roof covering shall be secured or fastened to the supporting roof construction and shall provide weather protection for the building at the roof.

§145.1510 Local Additions and Modifications to Section 1510 "Reroofing" of the 2007 California Building Code

- (a) Section 1510.1 has been modified as follows pursuant to Section 145.0105 of the Land Development Code:
 - 1510.1 General. Materials and methods of application used for recovering or replacing an existing roof covering shall comply with the requirements of Chapter 15 of the 2007-California Building Code as adopted and amended by the City of San Diego.
- (b) Sections 1510.1.1 through 1510.1.2 have been added as follows pursuant to Section 145.0106 of the Land Development Code:
 - (1) 1510.1.1. All replacements, alterations, or repairs shall be a Class "A" <u>roofing roof</u> assembly.
 - (2) 1510.1.2. The entire roof shall be a Class "A" roofing roof assembly where more than twenty-five percent of the total roof area is replaced, altered or repaired within any twelve month period.
- (c) Sections 1510.1.3 through 1510.1.5 have been added as follows pursuant to Section 145.0106 of the Land Development Code:
 - (1) 1510.1.3. Wood shakes and shingles are prohibited throughout the roof where more than twenty-five percent of the total roof area is replaced, altered or repaired within any twelve month period.

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- (2) 1510.1.4. Wood shakes and shingles are not permitted, except as provided in State Historical Building Code California Historical Building Code section Section 8-408 and section 145.1510.
- (3) 1510.1.5. No roof covering shall be applied over any existing wood shakes or wood shingles.

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Art 05 Div 16: Additions and Modifications to Chapter 16 of the 2010 California Building Code (New)

- 1. Delete code edition.
- 2. Repeal Section §145.1613 (a) minimum seismic base shear since it is now addressed in Section 12.8.1.1 equation 12.8-5 in Supplement # 2 of ASCE-05.
- 3. Repeal Section §145.1613 (c) minimum building separation since Section 1613.6.7 of the 2010 CBC addresses the issue.
- 4. Supplement # 1 and 2 are adopted as a part of the reference to ASCE 7 in chapter 35 of the CBC.

Division 16: Additions and Modifications to Chapter 16 of the

-2007 California Building Code

§145.1601 Local Modifications and Additions to Chapter 16 "Structural Design" of the 2007-California Building Code

- (a) Chapter 16 of the 2007-California Building Code has been adopted by reference with additions pursuant to Section 145.0106 of the Land Development Code.
- (b) Sections 1601 through 1613.6.2 1613.7 including all figures have been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

§145.1613 Local Additions and Modifications to Section 1613 "Earthquake Loads" of the 2007 California Building Code

Sub-sections 1613.6.3.1, 1613.6.3.2, 1613.6.3.3, 1613.6.3.4 1613.8.1 and 1613.8.2 have been added as follows pursuant to Section 145.0106 of the Land Development Code:

(a) **1613.6.3.1 Minimum Seismic Base Shear.** Modify equation 12.8-5 in Section 12.8.1.1 of ASCE 7-05 as follows:

 $C_s = 0.044S_{DS} I$ (Equation 12.8-5)

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(1) C_c-shall not be less than 0.01.

(b) 1613.6.3.2 1613.8.1 P-delta Effects. Modify equation 12.8-16 in Section 12.8.7 of ASCE 7-05 by adding the importance factor I as follows:

$$\theta = \frac{P_x \Delta I}{V_x h_{sx} C_d}$$
 (Equation 12.8-16)

- (c) 1613.6.3.3 Minimum Building Separation. Modify Section 12.12.3 of ASCE 7-05 and add equations 12.12-1 and 12.12-2 as follows:
 - (1) 12.12.3 Minimum Building Separation. All structures shall be separated from adjoining structures. Separations shall allow for the maximum inelastic response displacement $\Delta_{\rm M}$. $\Delta_{\rm M}$ shall be determined at critical locations with consideration for both translational and torsional displacements of the structure as follows:

- \(\delta\) max = Maximum displacement determined by an elastic analysis using the strength level seismic forces per Section 12.8, without reduction for allowable stress, and including torsional effects.
- (2) Adjacent buildings on the same property shall be separated by at least a distance Δ_{MT} , where

$$\frac{\Delta_{\text{MT}} = \sqrt{(\Delta_{\text{MI}})^2 + (\Delta_{\text{M2}})^2}}{\Delta_{\text{MT}} = \sqrt{(\Delta_{\text{MI}})^2 + (\Delta_{\text{M2}})^2}} - (Equation 12.2-2)$$

 $\Delta_{\rm M1}$ and $\Delta_{\rm M2}$ are the maximum inelastic response displacements of the adjacent buildings.

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Where a structure adjoins a lot line not common to a public way, the structure shall also be set back from the property line by at least the displacement, $\Delta_{\mathbf{M}}$, of that structure.

EXCEPTION: Smaller separations or property line setbacks shall be permitted when justified by rational analysis based on maximum expected ground motions.

(d) (c) 1613.6.3.4 1613.8.2 Displacements Within Structures. Modify equations 13.3-5, 13.3-6, 13.3-7 and 13.3-8 in Section 13.3.2.1 of ASCE 7-05 by adding the importance factor I as follows:

(1)
$$D_p = (\delta_{xA} - \delta_{yA}) I_A$$
 (Equation 13.3-5)

where

 I_A = the importance factor for structure A per Section 11.5.1 .

(2)
$$D_{P} = \frac{\left(h_{x} - h_{y}\right)\Delta_{aA}}{h_{cr}} I_{A}$$
 (Equation 13.3-6)

(3)
$$D_P = \left| \delta_{x_A} I_A \right| + \left| \delta_{y_B} I_B \right|$$
 (Equation 13.3-7)

(4)
$$D_{P} = \frac{h_{x}\Delta_{aA}}{h_{sx}}I_{A} + \frac{h_{y}\Delta_{aB}}{h_{sx}}I_{B}$$
 (Equation 13.3-8)

where

 I_B = the importance factor for Structure B in Section 11.5.1 of

ASCE 7-05.

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Art 05 Div 17: Additions and Modifications to Chapter 17 of the 2010 California Building Code

- 1. Delete code edition.
- 2. Update referenced code section due to renumbering in CBC Chapter 17.

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Division 17: Additions and Modifications to Chapter 17 of the 2007-California Building Code

§145.1701 Local Modifications and Additions to Chapter 17 "Structural Tests and Special Inspections" of the 2007-California Building Code

- (a) Chapter 17 of the 2007-California Building Code has been adopted by reference with additions pursuant to Section 145.0106 of the Land Development Code.
- (b) Sections 1701 through 1704 and 1706 through 1715 have been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

§145.1705 Local Additions and Modifications to Section 1705 "Statement of Special Inspections" of the 2007 California Building Code

(a) Section 1705.5 has been added as follows pursuant to Section 145.0106 of the Land Development Code:

1705.5. Where structural observation is required by Section <u>1709-1710</u> of the 2007 edition of the California Building Code, the structural observation shall be included as a part of the statement of special inspections, shall name the individual or firms who are to perform structural observation and shall describe the stages of construction at which structural observation is to occur.

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Art 05 Div 18: Additions and Modifications to Chapter 18 of the 2010 California Building Code

- 1. Delete code edition.
- 2. Make the following updates to Ch 18
 - a. Delete code edition.
 - b. Ch 18 reformatted so 145.1805 and needs to be renumbered, not needed for CRC.
 - c. Modify Section 1803.5.12 item 1 to reflect recently approved code change S149-09/10 limiting the height of retaining walls and foundation walls required to resist additional active lateral earth pressures due to seismic forces.
 - d. Table 145.1803 is renumbered and will include a column 1 that describes the geologic hazard groups. Additionally the last column is deleted since there is no difference between a Geologic Reconnaissance and a Geologic Report. The row with hazard group 53, 54 has been split to differentiate sites with and without slope for consistency with geology reviews in the discretionary review process, this will include Structure Class D (R-3, R-4 occupancies) when the site slopes at an angle greater than or equal to 4:1 or 14 degrees.
 - e. Modify the table to include structures so that the table is consistent with the 2010 CBC to require reports for all projects unless exempted and located in any of the geologic hazards zones to provide a report. Therefore the lower hazard number in each hazard group requires a report of C and D structures.

§145.1801 Local Modifications and Additions to Chapter 18 "Soils and Foundations" of the 2007 California Building Code

- (a) Chapter 18 of the 2007 California Building Code has been adopted by reference with additions and modifications pursuant to Sections 145.0105 and additions pursuant to Section 145.0106 of the Land Development Code.
- (b) Section 1802 1803 has been adopted by reference with modifications and additions pursuant to Section 145.0105 and 145.0106 of the Land Development Code.
- (c) Section 1801 and Section 1802 and Sections 1803 1804 through 1812

 1810 have been adopted by reference without change pursuant to Section 145.0103 of the land Development Code.

§ 145.1802 Local Additions and Modifications to Section 1802 "Foundation and Soils
Investigations" of the 2007 California Building Code

§ 145.1803 Local Additions and Modifications to Section 1803 "Geotechnical Investigations" of the California Building Code

- (a) Section 1803.2 has been adopted with additions pursuant to 145.0106 of the Land Development Code. 1802.2.5 has been added as follows pursuant to Section 145.0106 of the Land Development Code:
 - (1) 1802.2.5.1. 1803.2.1 A geotechnical investigation report shall be submitted when required by Section 1803.2 of the California

 Building Code and Section 145.1803 (d) of the Municipal Code

 Municipal Code Table 145.1802 or the Building Official, for all new structures, nonexempt additions to existing structures not exempted in Section 145.1803 (b) (or whenever the occupancy classification of a building changes to a higher relative hazard category (refer to Municipal Code Table 145-37A) as a result of the proposed work.
 - (2) 1802.5.2. 1803.2.2 When required, a report of the geotechnical investigation shall be submitted to the Building Official. When geologic hazards are identified, the report shall contain appropriate recommendations for mitigation of the hazards, and these recommendations shall be incorporated in the design of the project before issuance of a Building Permit. No Building Permit shall be issued for construction where the geotechnical investigation report establishes that construction of buildings or structures would be unsafe because of the geologic hazards. Issuance of a Building Permit does not constitute a representation that the site or construction is safe.

- (3) 1802.2.5.3. Additions to detached one and two-family dwellings are exempt from geologic investigation requirements for Building Permits, except when the site is located within Geologic Hazard Category 11 or 21, or when required by discretionary action. All new additions of less than 500 square feet of floor area, remodels and non-structural tenant improvements (TIs) to existing structures are exempt from geologic investigation requirements. Consecutive additions to the same structure which total 500 square feet or more in any 12 month period may require a geologic investigation.
- (4) 1802.2.5.4. 1803.2.3 The Building Official may require that a "NOTICE OF GEOLOGIC AND GEOTECHNICAL CONDITIONS" be executed by the property owner as a condition to the issuance of a Building Permit for any structure to be located over a suspected fault or other Geologic hazard. A "NOTICE OF GEOLOGIC AND GEOTECHNICAL CONDITIONS" may also be required when a geologic investigation cannot conclusively establish that buildings or structures located on the site would either be safe or unsafe. The form of notice shall be as provided by the Building Official, executed by the owner of the property, recorded with the San Diego County Recorder, and filed with the City of San Diego as a condition to issuance of the Building Permit.
- (b) Section 1803.2 has been modified and exceptions have been added as

 follows pursuant to Section 145.0105 and 145.0106 of the Land

 Development Code:
 - (1) 1803.2 Investigations required. Geotechnical investigations shall be conducted in accordance with Sections 1803.3 through 1803.5 except as follows.

- (A) Exception 1. The building official shall be permitted to waive the requirement for a geotechnical investigation where satisfactory data from adjacent areas is available that demonstrates an investigation is not necessary for any of the conditions in Sections 1803.5.1 through 1803.5.6 and Sections 1803.5.10 and 1803.5.11; and
- (B) Exception 2. The building official shall be permitted to waive the requirement for a geotechnical investigation for additions to detached one and two-family dwellings, except when the site is located within Geologic Hazard Category 11 or 21 in Table 145.1803 of the Municipal Code, or when required by a discretionary permit; or
- (C) Exception 3. The building official shall be permitted to waive the requirement for a geotechnical investigation for all additions of less than 500 square feet of floor area.

 Consecutive additions to the same structure which total 500 square feet or more in any 12-month period may require a geologic investigation; or
- (D) Exception 4. The building official need not require a geotechnical investigation for remodels and non-structural tenant improvements (TIs) to existing structures.
- (c) Section 1803.5 has been modified as follows pursuant to Section

 145.0106 of the Land Development Code:
 - (1) <u>1803.5 Investigated conditions. Geotechnical investigations shall</u> be conducted as indicated in Sections 1803.5.1 through 1803.5.13.

- (d) Section 1803.5.11 has been modified by adding subsections 1803.5.11.1

 and 1803.5.11.2 as follows pursuant to Section 145.0106 of the Land

 Development Code:
 - (1) 1803.5.11.1 Unless exempted in Section 145.1803(b) a
 geotechnical investigation report shall be submitted when required
 by Municipal Code Section 145.1803 (f) and Table 145.1803, and
 when required by Section 1803.5.11.
 - (2) <u>1803.5.11.2</u> For structures regulated by the California Residential <u>Code Section 1803.5.11.1 shall apply.</u>
- (e) Section 1803.5.12 item 1 has been modified pursuant to Section 145.0105 of the Land Development Code:
 - (1) <u>1803.5.12 Seismic Design Categories D through F. For structures</u>
 assigned to Seismic Design Category D, E or F in accordance with

 Section 1613, the geotechnical investigation required by Section

 1803.5.11, shall also include:
 - (A) 1. The determination of lateral earth pressures on foundation walls, and retaining walls supporting more than 6 ft of backfill height, due to earthquake motions.
- (f) Section 1803.5.13 has been added as follows pursuant to Section 145.0105 of the Land Development Code:
 - (1) <u>1803.5.13 Local Geologic Hazards. A geotechnical investigation</u> report shall be submitted when required by Municipal Code Section 145.1803 and Table 145.1803.

- (A) 1805.13.1 Geotechnical investigation reports are not required for buildings and structures in Occupancy

 Group U or any other structure of a similar minor nature.
- (B) 1803.13.2 Notwithstanding Table 145.1802-145.1803, the Building Official may require a geotechnical investigation report for any site if the Building Official has reason to believe that a geologic hazard may exist at the site.
- (g) The Geologic Hazard Category and the Building, Structure and Facility

 Class must be determined as follows when using Table 145.1803 to

 determine whether a geotechnical investigation report is required due to

 local geological hazards within the City of San Diego.
 - (1) Hazard category: The Hazard Category describes the geologic feature or condition suspected at the site. The Hazard Category is determined by reference to the current City of San Diego Seismic Safety Study (SDSSS) maps.
 - (2) Building, Structure, and Facility Class: To determine whether a
 Geotechnical Investigation Report is required, the building,
 structure or facility needs to be assigned to one of four classes
 based on the use, occupancy, number of occupants as well as
 whether hazardous materials are used or stored. The classes are
 ranked by importance with Class A being the most critical class
 and Class D being the least critical.
 - 1. Class A includes the following:

- Buildings or structures classified as Essential
 Facilities in Occupancy Category IV as defined in
 Table 1604.5 of the California Building Code.
- 2. Any building, structure or facility where, in the opinion of the Building Official, significant generation or storage of toxic, hazardous, or flammable materials will occur. Quantities of these materials will be assessed in accordance with the risks they present.
- Class B includes the following developments, occupancy groups, and structures provided they are not included in Class A:
 - 1. All developments consisting of four or more structures.
 - 2. All new structures requiring deep foundations (piers or pilings).
 - 3. All buildings over three stories in height.
 - All buildings containing the following occupancies
 (Refer to the 2007-California Building Code, Chapter 3):
 - a. Group A, Divisions 1, 2, 3 and 4.
 - b. Group E.
 - c. Group H, Divisions 1, 2, and 3.
 - d. Group I, Divisions 2 and 3.
 - All buildings with an occupant load of more than 300 occupants as determined by Table 10-A of the 2007
 California Building Code and Buildings used for public assembly assigned to Occupancy Category III in Table 1604.5.

- 6. Tanks, bins, hoppers, silos, and other storage structures of more than 20,000 gallons capacity intended to store toxic, hazardous, or flammable contents that are not associated with a building, structure, or facility in Class A.
- 7. <u>Tanks, bins, hoppers, silos, and similar structures over</u> 35 feet high.
- 8. Towers over 35 feet high.
- 9. Retaining walls (height is measured from the top of the footing to the top of the wall):
 - a. Retaining walls over 12 feet in height.
 - b. Retaining walls over 8 feet in height

 supporting a surcharge or retaining toxic,
 hazardous, or flammable contents.
- 3. <u>Class C includes the following occupancy groups and</u> structures provided they are not included in Classes A or B:
 - All buildings containing the following occupancies
 (Refer to the 2007-California Building Code, Chapter 3):
 - a. Group A, Division 2, 3 and 5 (with rooms having less than 300 occupants).
 - b. Group B.
 - c. Group E.
 - d. Group F, Divisions 1 and 2.
 - e. Group H, Divisions 4 and 5.
 - f. Group I, Division 1.
 - g. Group M.
 - h. Group R, Division 1 and 2.
 - i. Group S, Division 1.

- 2. Retaining walls (height is measured from the top of the footing to the top of the wall):
 - a. Retaining walls over 6 feet in height.
 - b. Retaining walls of any height supporting a surcharge or retaining toxic, hazardous, or flammable contents.
- 3. Tanks, bins, hoppers, silos, and other storage structures intended to store toxic, hazardous, or flammable contents.
- 4. <u>Tanks, bins, hoppers, silos, and similar structures over</u> 20 feet high.
- 5. Towers over 20 feet high.
- 4. <u>Class D includes the following occupancy group and</u>
 structures provided they are not included in Classes A, B,
 or C:
 - All buildings containing the following occupancies
 (refer to 2007 California Building Code, Chapter 3):
 - a. Group R, Division 3 and Group R Division 4.
- (h) Section 1803.6 has been modified with additions to Section 145.0105 and 145.0106 of the Land Development Code:
 - (1) 1803.6.1 Geotechnical investigations reports prepared pursuant to
 Section 1803.6 of the California Building Code as well as Section
 145.1803 (f) shall be required for sites where geologic hazards are
 suspected, prior to obtaining a Building Permit. The report shall
 include all pertinent requirements as established by the Building
 Official. All reports shall be prepared in accordance with the most
 recent edition of the City of San Diego "Guidelines for

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Geotechnical Reports," which is available through the City of San Diego Official Website. These minimum requirements shall be augmented by geologic evaluations pertinent to the type of proposed project and anticipated method of construction, which should be described in the report. For buildings located in both a fault zone and a hazard category zone, the most restrictive requirement shall govern.

Table 145.1802

Required Geologic Investigation (5)

Hazard Category ⁽¹⁾	Geologic Reconnaissance Required	Geologic Report Required
$11^{(3)}$, $13^{(3)}$, 21 , $31^{(4)}$, 41		$A^{(2)}, B^{(2)}, C^{(2)}, D^{(2)}$
12.⁽³⁾, 22, 42, 43	C, D	A,B
23-27, 32⁽⁴⁾, 54	B, C	${f A}$
44-48, 52, 53	₿	\mathbf{A}
51, 55		$oldsymbol{A}$

Table 145.1803 (1)

Required Geotechnical Investigation

Type of Hazard	Hazard Category	Building, Structure, and Facility Class
Fault Zones/Ground Rupture	11, 12, 13	<u>A, B, C, D</u>
Landslides/Potential Slope Instability	21 through 27	<u>A, B, C, D</u>
Liquefaction/Potential Ground Failure	31, 32	<u>A, B, C, D</u>
Coastal Bluff Stability	41 through 48	<u>A, B, C, D</u>
Variable Stability/Unfavorable Geologic Structure with Sloping Topography	53, 54 (with slope greater than or equal to 4:1 or 25%)	<u>A, B, C, D</u>
All Other Conditions	53, 54 (with slope less than 4:1 or 25%)	<u>A, B, C</u>
	<u>51, 52, 55</u>	<u>A, B, C</u>

Footnotes:

(1) See Section 145.1803 (f) and (g) when reading Table 145.1803

Reason: This section has been restructured due to the reformatting of Chapter 18 of the 2010 CBC. Furthermore, the footnotes were moved into the section and the section has been reformatted to serve as a roadmap for the use of the Table. The Geologic Reconnaissance column was merged into the Geologic Report column (middle column in the table eliminated). Additionally a new column 1 was added to provide a description of the hazard. The second Hazard Category column groups the hazard categories to coincide with the hazard descriptions.

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The reformatted table will be more restrictive than the 2007 version that was not technically changed upon adoption of the 2007 CBC.

Hillside areas of the city of San Diego can be defined as areas where the slope gradient is 25 percent or steeper. A slope gradient of 25 percent is equivalent to a slope ratio of 4:1 (horizontal to vertical). Areas of the City where the slope gradient is 25 percent or steeper are shown on San Diego Geographic Information System (GIS) maps (available in the Project Tracking System – PTS). Slopes with a gradient of less than 25 percent are not typically prone to slope instability. Slopes with a gradient of 25 percent or greater that are composed of weak materials may be prone to slope instability. In other cases, zones or planes of weakness within a slope may be adversely oriented or unsupported; a condition referred to as adverse geologic structure. Geologic Hazard Categories (GHC) 53 and 54 are characterized by potentially adverse geologic structure with respect to slope stability. Slopes with a gradient of 25 percent or greater with adverse geologic structure may not be adequately stable for proposed development and construction.

A review of the San Diego Seismic Safety Study maps indicate that know landslides are present within and adjacent to hillside areas identified as GHC 53. Areas adjacent to existing landslides have an increased risk of slope instability and may not be adequately stable. Experience has shown that steep slopes within GHC 53 and 54 have been prone to surficial slope failure resulting in mud and debris flows. Therefore, hillside areas within GHC 53 and 54 should be investigated by an engineering geologist and geotechnical engineer to evaluate slope stability for proposed development and construction plans.

The California Building Code allows the Building Official to waive geotechnical investigation reports requirements where satisfactory data from adjacent area are available that demonstrates an investigation is not necessary. Based on regional geologic hazard mapping, GHC 23-27, and 53-54 were considered to have relatively low risk for Class D structures and, accordingly, Class D structures located in these areas were exempt from geologic investigation report requirements. The exemptions previously allowed for Class D structures have been revised for consistency with the implied hazards and to better protect public safety. Table 145.1803 has been revised to require geotechnical investigation reports for Class D structures proposed in areas with "Slide-Prone Formations" or hillside areas with potentially adverse geologic structure (GHC 23-27 and 53-54).

Here is a small sampling of landslides that have occurred in the City within Geologic Hazard Categories (GHC) 22-27 and 53.

Deep seated landslides:

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7037 Via Valverde, La Jolla – GHC 22 7591 Caminito Avola, La Jolla – GHC 22 Soledad Mountain Road, La Jolla – GHC 25 Paseo Laredo, La Jolla – GHC 26 Genoa Street, Del Cerro – GHC 53 3340 Harbor View/ Martinez St., Pt. Loma – GHC 53

Surficial slope failures:

1151 Via Angelina, La Jolla – GHC 25/53 2271 Via Media, La Jolla – GHC 25/53 7595 Hillside Drive, La Jolla – GHC 27 1821 Castellana Rd, La Jolla – GHC 27 1659 Crespo, La Jolla – GHC 53 4980 Northaven Ave, Bay Park – GHC 53 4958 Canterbury Dr., Midcity – GHC 53 5283 Countryside Dr., College – GHC 53 6852 Julie St., College – GHC 53 5173 Leo St. (Alumni Pl), College – GHC 53 4223 6th St., Uptown – GHC 53 701 Bangor St., Pt. Loma – GHC 53

Since Section J104.3 of Appendix J (requirements for geotechnical reports for grading plans) will not be adopted, the requirements for geotechnical reports are incorporated into Section 145.1803 and Table 145.1803. So another reason for the changes to Table 145.1803 relate to providing geotechnical input for grading on hillside and higher risk residential lots.

Currently, a geotechnical investigation report is required to be submitted with all grading plans (per Information Bulletin 515).

The Table to follow shows the proposed changes in a side by side comparison to illustrate the impact of the changes in the cells of the table due to alignment with the intent of Section 1803.5.11. This issue had not been resolved upon adoption of the 2007 CBC. The impact is reduced through the exceptions in Section § 145.1803 (b)

Comparison Table 145.1803 (1) For Required Geotechnical Investigation						
Type of Hazard	Hazard Category	Current Building, Structure, and Facility Class	Proposed Building, Structure, and Facility Class	Comment		
Fault Zones/ Ground Rupture	11, 12, 13	A, B, C, D	A, B, C, D	No Change		
Landslides/ Potential	21 through 27	21,22 A, B, C, D	A, B, C, D	Hazard 23-27 more restrictive to include D		
Slope Instability		23-27 A,B,C	A, B, C, D	(single family) structures		
Liquefaction/ Potential Ground	31, 32	31 A, B, C, D	A, B, C, D	Hazard 32 more restrictive to include D (single family)		
Failure		32 A,B,C	A, B, C, D	structures		
Coastal Bluff Stability	41 through 48	41, 42, 43 A, B, C, D	A, B, C, D	Hazard 44, 48 more restrictive to include all structures in		
		44-48 A	A, B, C, D	addition to essential services facilities		
Variable Stability/ Unfavorable Geologic	53, 54 (with slope greater than or equal to 4:1 or 25%)	53 A,B	A, B, C, D	Hazard 54 more restrictive to include D (single family) structures Hazard 53		
Structure with Sloping Topography		54 A,B,C	A, B, C, D	more restrictive to include most commercial apartment and single family		
All Other Conditions	53, 54 (with slope less than 4:1 or 25%)	53 A,B	A, B, C	Hazard 53 more restrictive more restrictive to include		
		54 A,B,C	A, B, C	all structures in addition to essential services facilities		
51,	51, 52, 55	51, 55 A	A, B, C	Hazard 51,55 more restrictive more restrictive to include all structures except single family in addition to essential services facilities.		
		52 A, B	A, B, C	Hazard 52 more restrictive includes most commercial buildings and apartment and high occupant load buildings except single family		

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1803.2 Investigations required. Geotechnical investigations shall be conducted in accordance with Sections 1803.3 through 1803.5.

Exception:

- 1. The *building official* shall be permitted to waive the requirement for a geotechnical investigation where satisfactory data from adjacent areas is available that demonstrates an investigation is not necessary for any of the conditions in Sections 1803.5.1 through 1803.5.6 and Sections 1803.5.10 and 1803.5.11; and
- The building official need not require a geotechnical investigation for additions to detached one and two-family dwellings that are exempt from geotechnical investigation requirements per Section 145.1803 of the Municipal Code prior to the issuance of a for Building Permits, except when the site is located within Geologic Hazard Category 11 or 21in Table 145.1803 of the Municipal Code, or when required by a discretionary permit action; or
- 3. The building official need not require a geotechnical investigation for all new additions to other than detached one and two-family dwellings, of less than 500 square feet of floor area. Consecutive additions to the same structure which total 500 square feet or more in any 12-month period may require a geologic investigation; or
- 4. The building official need not require a geotechnical investigation for remodels and non-structural tenant improvements (TIs) to existing structures.
- 1803.2.1 A geologic investigation shall be submitted when required by Section 1803.2 of the California Building Code and Section 145.1803 (d) of the Municipal Code Municipal Code Table 145.1802 or the Building Official, for all new structures, nonexempt additions to existing structures not exempted in Section 145.1803 (b) (or whenever the occupancy classification of a building changes to a higher relative hazard category (refer to Municipal Code Table 145.37A) as a result of the proposed work.
- 1803.2.2 When required, a report of the geologic investigation shall be submitted to the Building Official. When geologic hazards are identified, the report shall contain appropriate recommendations for mitigation of the hazards, and these recommendations shall be incorporated in the design of the project before issuance of a Building Permit. No Building Permit shall be issued for construction where the geologic investigation establishes that construction of buildings or structures would be unsafe because of the geologic hazards. Issuance of a Building Permit does not constitute a representation that the site or construction is safe.

 1803.2.3 The Building Official may require that a "NOTICE OF GEOLOGIC AND GEOTECHNICAL CONDITIONS" be executed by the property owner as a condition to the issuance of a Building Permit for any structure to be located over a suspected fault or other Geologic hazard. A "NOTICE OF GEOLOGIC AND GEOTECHNICAL CONDITIONS" may also be required when a geologic investigation cannot conclusively establish that buildings or structures located on the site would either be safe or unsafe. The form of notice shall be as provided by the Building Official, executed by the owner of the property, recorded with the San Diego County Recorder, and filed with the City of San Diego as a condition to issuance of the Building Permit.
- **1803.5 Investigated conditions.** Geotechnical investigations shall be conducted as indicated in Sections 1803.5.1 through 1803.5.12-1803.5.13.
- **1803.5.11 Seismic Design Categories C through F.** For structures assigned to *Seismic Design Category* C, D, E or F in accordance with Section 1613, a geotechnical investigation shall be conducted, and shall include an evaluation of all of the following potential geologic and seismic hazards:
 - 1. Slope instability.
 - 2. Liquefaction.
 - 3. Differential settlement.
 - 4. Surface displacement due to faulting or lateral spreading.

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1803.5.11.1 Unless exempted in Section 145.1803(b) a geotechnical investigation shall be submitted when required by Municipal Code Section 145.1803 (f) and Table 145.1803, and when required by Section 1803.5.11.

1803.5.11.2 For structures regulated by the California Residential Code Section 1803.5.11.1 shall apply.

1803.5.11.1 A geotechnical investigation shall be submitted when required by Municipal Code Section 145.1803 and Table 145.1803 for buildings and structures assigned to seismic Design Category A, B, C, D, E and E. For structures regulated by the California Residential Code Seismic Design Category D shall mean D_0 D_1 D_2 .

1803.5.12 Seismic Design Categories D through F. For structures assigned to *Seismic Design Category* D, E or F in accordance with Section 1613, the geotechnical investigation required by Section 1803.5.11, shall also include:

1. The determination of lateral <u>earth pressures</u> on foundation walls, and retaining walls <u>supporting more than 6 ft of backfill height,</u> due to earthquake motions.

Remainder of Section not changed

1803.5.13 Local Geologic Hazards. A geotechnical investigation shall be submitted when required by Municipal Code Section 145.1803 and Table 145.1803.

1805.13.1 No geotechnical investigations are required for buildings and structures in Occupancy Group U or any other structure of a similar minor nature.

1803.13.2 Notwithstanding Table 145.1802.145.1803, the Building Official may require a geotechnical report for any site if the Building Official has reason to believe that a geologic hazard may exist at the site.

Art 05 Div 19: Additions and Modifications to Chapter 19 of the 2010 California Building Code

- 1. Section 145.1908 is proposed to be repealed. Section 14.8.3 and 14.8.4 of ACI 318-08 have been updated to reflect the local amendment.
- 2. Add a new amendment for the design of anchor bolts connecting wood and cold form steel sill plates supporting light framed wood or cold formed steel wall framing to foundations or slabs to resist seismic shear forces. The proposed change is based on approved requirements from code Change S167-09/10 recently approved into the 2012 IBC during the final action hearings in Dallas. The requirement is being proposed to be adopted in advance prior to adoption of the 2013 CBC.

Article 5: Building Regulations

Division 19: Additions and Modifications to Chapter 19 of the

2007 California Building Code

§145.1901 Local Modifications and Additions to Chapter 19 "Concrete" of the 2007 California Building Code

- (a) Chapter 19 of the 2007 California Building Code has been adopted by reference with additions pursuant to Section 145.0106 of the Land Development Code.
- (b) Sections 1901 through 1907 and 1909 through 1915 have been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

§145.1908 Local Additions to Section 1908 "Modifications to ACI 318" of the 2007 California Building Code

(a) Section 1908.1.17 has been added as follows pursuant to Section 145.0106 of the Land Development Code:

1908.1.17 Modify Equations (14-7), (14-8) and (14-9) of Sections 14.8.3 and 14.8.4 in ACI 318-05 to read as follows:

Section 14.8.3 of ACI 3180-05 is modified as follows pursuant to Section 145.0105 of the Land Development Code:

-I_{er}-shall be calculated by Equation (14-7), and M_a-shall be obtained by iteration of deflections.

$$\frac{I_{cr} - \frac{E_s}{E_c} \left[A_s + \frac{P_u h}{f_v 2d} \right] (d - c)^2 + \frac{l_w c^3}{3}$$
 (Equation 14-7)

— and the value E_z/E_z shall not be taken less than 6.

Section 14.8.4 of ACI 318-05 is modified as follows pursuant to Section 145.0105 of the Land Development Code:

14.8.4 — Maximum out of plane deflection, \Box_s , due to service loads, including $P\Box$ effects, shall not exceed $l_e/150$.

If M_a , maximum moment at mid-height of wall due to service lateral and eccentric loads, including P = effects, exceed ($^2/_3$) M_{ex} , $= \frac{1}{3}$ shall be calculated by Equation (14-8):

$$\Delta_s = \frac{2}{3} \Delta_{cr} + \frac{M_a - \frac{2}{3} M_{cr}}{M_n - \frac{2}{3} M_{cr}} \left(\Delta_n - \frac{2}{3} \Delta_{cr} \right)$$

(Equation 14-8)

If M_a does not exceed $(^2/_3)M_{cr}$, \Box_s shall be calculated by Equation (14-9):

$$\Delta_s - \frac{M_a}{M_{cr}} \Delta_{cr}$$

Equation 14-9)

where:

$$\Delta_{cr} = \frac{5M_{cr}l_c^2}{48E_cI_g}$$

and

$$\frac{5M_n l_c^2}{48E_c I_{cr}}$$

- (a) Section 1908.1.9 has been modified and exceptions number 2 and number 3 have been added as follows pursuant to Section 145.0106 of the Land Development Code:
 - (1) 1908.1.9 ACI 318, Section D.3.3. Modify ACI 318, Sections D3.3.4 and D3.3.5, and delete and replace Section D.3.3.6 read as follows: to read as follows:
 - (A) 2. D.3.3.4 need not apply and the design shear strength in accordance with D.6.2.1(c) need not be computed for anchor bolts attaching wood sill plates of bearing or non-bearing walls of light-frame wood structures to foundations or foundation stem walls provided all of the following are satisfied:
 - The allowable in-plane shear strength of the anchor is
 determined in accordance with AF&PA NDS Table 11E for
 lateral design values parallel to grain.
 - 2. The maximum anchor nominal diameter is 5/8 inches (16 mm).
 - 3. Anchor bolts are embedded into concrete a minimum of 7 inches (178 mm).
 - 4. Anchor bolts are located a minimum of 1-3/4 inches (45 mm) from the edge of the concrete parallel to the length of the wood sill plate.

- Anchor bolts are located a minimum of 15 anchor
 diameters from the edge of the concrete perpendicular to
 the length of the wood sill plate.
- 6. The sill plate is 2-inch or 3-inch nominal thickness.
- (B) 3. Section D.3.3.4 need not apply and the design shear strength in accordance with Section D.6.2.1(c) need not be computed for anchor bolts attaching cold-formed steel track of bearing or non-bearing walls of light-frame construction to foundations or foundation stem walls provided all of the following are satisfied:
 - 1. The maximum anchor nominal diameter is 5/8 inches (16 mm).
 - 2. Anchors are embedded into concrete a minimum of 7 inches (178 mm).
 - 3. Anchors are located a minimum of 1-3/4 inches (45 mm) from the edge of the concrete parallel to the length of the track.
 - 4. Anchors are located a minimum of 15 anchor diameters
 from the edge of the concrete perpendicular to the length of
 the track.
 - 5. The track is 33 to 68 mil designation thickness.

Allowable in-plane shear strength of exempt anchors, parallel to the edge of concrete shall be permitted to be determined in accordance with AISI S100 Section E3.3.1.

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1908.1.9 ACI 318, Section D.3.3. Modify ACI 318, Sections D3.3.4 and D3.3.5, delete and replace Section D.3.3.6 and add Section D.3.3.7 to read as follows:

D.3.3.4 – Anchors shall be designed to be governed by the steel strength of a ductile steel element as determined in accordance with D.5.1 and D.6.1, unless either D.3.3.5 or D.3.3.6 is satisfied.

Exceptions:

- 1. Anchors designed to resist wall out-of-plane forces with design strengths equal to or greater than the force determined in accordance with ASCE 7 Equation 12.11-1 or 12.14-10 need not satisfy Section D.3.3.4.
- 2. D.3.3.4 need not apply and the design shear strength in accordance with D.6.2.1(c) need not be computed for anchor bolts attaching wood sill plates of bearing or non-bearing walls of light-frame wood structures to foundations or foundation stem walls provided all of the following are satisfied:
 - 1. The allowable in-plane shear strength of the anchor is determined in accordance with AF&PA NDS Table 11E for lateral design values parallel to grain.
 - 2. The maximum anchor nominal diameter is 5/8 inches (16 mm).
 - 3. Anchor bolts are embedded into concrete a minimum of 7 inches (178 mm).
 - 4. Anchor bolts are located a minimum of 1-3/4 inches (45 mm) from the edge of the concrete parallel to the length of the wood sill plate.
 - 5. Anchor bolts are located a minimum of 15 anchor diameters from the edge of the concrete perpendicular to the length of the wood sill plate.
 - 6. The sill plate is 2-inch or 3-inch nominal thickness.
- 3. Section D.3.3.4 need not apply and the design shear strength in accordance with Section D.6.2.1(c) need not be computed for anchor bolts attaching cold-formed steel track of bearing or non-bearing walls of light-frame construction to foundations or foundation stem walls provided all of the following are satisfied:
 - 1. The maximum anchor nominal diameter is 5/8 inches (16 mm).
 - 2. <u>Anchors are embedded into concrete a minimum of 7 inches (178 mm).</u>
 - 3. Anchors are located a minimum of 1-3/4 inches (45 mm) from the edge of the concrete parallel to the length of the track.
 - 4. Anchors are located a minimum of 15 anchor diameters from the edge of the concrete perpendicular to the length of the track.
 - 5. The track is 33 to 68 mil designation thickness.

Allowable in-plane shear strength of exempt anchors, parallel to the edge of concrete shall be

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Art 05 Div 20: Additions and Modifications to Chapter 20 of the 2010 California Building Code

No changes. Delete code edition.

Article 5: Building Regulations

Division 20: Additions and Modifications to Chapter 20 of the

-2007 California Building Code

§145.2001 Local Modifications and Additions to Chapter 20 "Aluminum" of the 2007 California Building Code

Chapter 20 of the 2007 California Building Code has been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

2010 California Building Code - Building Regulations

Art 05 Div 21: Additions and Modifications to Chapter 21 of the 2010 California Building Code

No changes. Delete code edition.

Article 5: Building Regulations

Division 21: Additions and Modifications to Chapter 21 of the

-2007 California Building Code

§145.2101 Local Modifications and Additions to Chapter 21 "Masonry" of the 2007 California Building Code

Chapter 21 of the 2007 California Building Code has been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

2010 California Building Code - Building Regulations

Art 05 Div 22: Additions and Modifications to Chapter 22 of the 2010 California Building Code

No changes. Delete code edition.

Article 5: Building Regulations

Division 22: Additions and Modifications to Chapter 22 of the

-2007 California Building Code

§145.2201 Local Modifications and Additions to Chapter 22 "Steel" of the 2007 California Building Code

Chapter 22 of the 2007 California Building Code has been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

2010 California Building Code - Building Regulations

Art 05 Div 23: Additions and Modifications to Chapter 23 of the 2010 California Building Code

Delete code edition.

Article 5: Building Regulations

Division 23: Additions and Modifications to Chapter 23 of the

2007-California Building Code

§145.2301 Local Modifications and Additions to Chapter 23 "Wood" of the 2007 California Building Code

Chapter 23 of the 2007 California Building Code has been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

2010 California Building Code - Building Regulations

Art 05 Div 24: Additions and Modifications to Chapter 24 of the 2010 California Building Code

No changes.

Article 5: Building Regulations

Division 24: Additions and Modifications to Chapter 24 of the

2007-California Building Code

§145.2401 Local Modifications and Additions to Chapter 24 "Glass and Glazing" of the 2007 California Building Code

Chapter 24 of the 2007 California Building Code has been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

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Art 05 Div 25: Additions and Modifications to Chapter 25 of the 2010 California Building Code

No changes. Delete code edition.

Article 5: Building Regulations

Division 25: Additions and Modifications to Chapter 25 of the

-2007 California Building Code

§145.2501 Local Modifications and Additions to Chapter 25 "Gypsum Board and Plaster" of the 2007 California Building Code

Chapter 25 of the 2007 California Building Code has been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

2010 California Building Code - Building Regulations

Art 05 Div 26: Additions and Modifications to Chapter 26 of the 2010 California Building Code

No changes. Delete code edition.

Article 5: Building Regulations

Division 26: Additions and Modifications to Chapter 26 of the

2007 California Building Code

§145.2601 Local Modifications and Additions to Chapter 26 "Plastic" of the 2007 California Building Code

Chapter 26 of the 2007 California Building Code has been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

2010 California Building Code - Building Regulations

Art 05 Div 27: Additions and Modifications to Chapter 27 of the 2010 California Building Code

No changes. Delete code edition.

Article 5: Building Regulations

Division 27: Additions and Modifications to Chapter 27 of the

2007-California Building Code

§145.2701 Local Modifications and Additions to Chapter 27 "Electrical" of the 2007 California Building Code

Chapter 27 of the 2007-California Building Code has been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

2010 California Building Code - Building Regulations

Art 05 Div 28: Additions and Modifications to Chapter 28 of the 2010 California Building Code

No changes. Delete code edition.

Article 5: Building Regulations

Division 28: Additions and Modifications to Chapter 28 of the

2007 California Building Code

§145.2801 Local Modifications and Additions to Chapter 28 "Mechanical Systems" of the 2007 California Building Code

Chapter 28 of the 2007 California Building Code has been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

2010 California Building Code - Building Regulations

Art 05 Div 29: Additions and Modifications to Chapter 29 of the 2010 California Building Code

No changes. Delete code edition.

Article 5: Building Regulations

Division 29: Additions and Modifications to Chapter 29 of the

-2007 California Building Code

§145.2901 Local Modifications and Additions to Chapter 29 "Plumbing Systems" of the 2007 California Building Code

- (a) Chapter 29 of the 2007 California Building Code has not been adopted by the City of San Diego pursuant to Section 145.0104 of the Land Development Code.
- (b) Chapter 4 of the 2007-California Plumbing Code has been adopted by reference pursuant to Section 147.0103 of the Land Development Code and shall be used as the basis for determining the number and location of plumbing fixtures and bathing, drinking fountains and sanitary facilities.

2010 California Building Code - Building Regulations

Art 05 Div 30: Additions and Modifications to Chapter 30 of the 2010 California Building Code

Delete code edition.

No changes are proposed at this time to add identification and operational requirements fore fiore service elevators and occupant evacuation elevators. Issues have been raised with State fire Marshal and the elevator safety section in CalOsha. The following code changes were adopted in the 2012 IBC by proponents who submitted the requirements in Section 3007 and 3008 of the 2010 CBC seeking to complete the requirements due to inadvertent omissions during a prior code cycle.

- 1. G159-09/10 code change or recal of fire service access elevator unless State Elevator inspector addressed this issue.
- 2. G160-09/10 for robustness of construction on fire serviced access elevators.
- 3. G171-09/10 code change for recall of occupant evacuation elevators.
- 4. G160-09/10 for robustness of occupant evacuation elevators.
- 5. G164–09/10 that requires the exit enclosure containing the standpipe not pass through fire service elevator.
- 6. G167–09/10 requirement for identification of fire service elevators.

Article 5: Building Regulations

Division 30: Additions and Modifications to Chapter 30 of the

-2007 California Building Code

§145.3001 Local Modifications and Additions to Chapter 30 "Elevators and Conveying Systems" of the 2007-California Building Code

Chapter 30 of the 2007-California Building Code has been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

2010 California Building Code - Building Regulations

Art 05 Div 31: Additions and Modifications to Chapter 31 of the 2010 California Building Code

No Changes. Delete code edition.

Article 5: Building Regulations

Division 31: Additions and Modifications to Chapter 31 of the

-2007 California Building Code

§145.3101 Local Modifications and Additions to Chapter 31 "Special Construction" of the 2007-California Building Code

- (a) Chapter 31 of the California Building Code has been adopted by reference with additions pursuant to Section 145.0106 of the Land Development Code.
- (b) Sections 3101 through 3108 have been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

§145.3109 Local Additions and Modifications to Section 3109 "Swimming Pool Enclosure and Safety Devices" of the 2007 California Building Code

Sections 3109.1.1, 3109.1.2 and 3109.4.1.10 of the 2007 California Building Code have been added as follows pursuant to Section 145.0106 of the Land Development Code.

(a) Purpose of Building Regulations for Swimming Pools, Spas and Hot Tubs

Section 3109.1.1 has been added as follows pursuant to Section 145.0106

of the Land Development Code:

3109.1.1 Purpose of Building Regulations for Swimming Pools, Spas and Hot Tubs. The purpose of this Section is to establish building regulations for private swimming pools and hot tubs or spas that do not have locking safety covers that comply with the American Society for Testing Materials Emergency Performance Specifications (ASTM ES 13-89) (ASTM ES 1346) located on the premises of Group R, Division 3 (Occupancies) units.

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Subsection (b) no change

(c) Barrier Requirements for Outdoor Swimming Pools

Section 3109.4.1.10 has been added as follows pursuant to Section 145.0106 of the Land Development Code:

3109.4.1.10 Barrier Heights. When provided as a part of a pool enclosure pursuant to Section 3109.4.4.3 of the 2007 California Building Code, the enclosure barrier shall be designed so that it can not be readily climbed by small children. The barrier shall comply with the height requirements contained in Section 3109.4.4.3 of the 2007 California Building Code. When located adjacent to a slope, planter or other fixed appendage, the barrier shall comply with Figure 31B-5 of the 2007 California Building Code.

Remainder of Section not changed

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Art 05 Div 32: Additions and Modifications to Chapter 32 of the 2010 California Building Code

No change necessary. Delete code edition.

Article 5: Building Regulations

Division 32: Additions and Modifications to Chapter 32 of the

-2007 California Building Code

§145.3201 Local Modifications and Additions to Chapter 32 "Encroachments into the Public Right-of-Way" of the 2007 California Building Code

- (a) Chapter 32 of the 2007 California Building Code has been adopted by reference with additions pursuant to Section 145.0106 of the Land Development Code.
- (b) Sections 3201 and 3202 been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

2010 California Building Code - Building Regulations

Art 05 Div 33: Additions and Modifications to Chapter 33 of the 2010 California Building Code

- 1. Repeal Section 145.3301 (a) since it is redundant and duplicates sub-section (b) 1.
- 2. Repeal Section 145.3301 (b) 1 since Section 3303 of the CBC is better written.
- 3. Repeal Section 145.3301 (b) 9 since it is not clear what the requirement is seeking. This requirement is a leftover from approximately 30 years ago when the SDMC had a different structure.

Delete code edition.

Article 5: Building Regulations

Division 33: Additions and Modifications to Chapter 33 of the

2007-California Building Code

§145.3301 Local Modifications and Additions to Chapter 33 "Safeguards During Construction" of the 2007-California Building Code

- (a) Chapter 33 of the 2007 California Building Code has been adopted by reference with additions and modifications pursuant to Section 145.0106 of the Land Development Code.
- (b) Sections 3301 through 3302 and 3304 through 3312 have been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

§145.3303 Local Modifications and Additions to Section 3303 "Demolition" of the 2007 California Building Code

(a) Section 3303 has been modified as follows pursuant to Section 145.0105 of the Land Development Code:

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3303.4 Where a structure has been demolished or removed any excavations or depressions remaining after the structure is removed or demolished shall be filled, compacted, and restored to the level of the adjacent ground.

- (a) (b) Section 3303.7 has been added as follows pursuant to Section 145.0106 of the Land Development Code:
 - 3303.7 Additional Demolition Regulations. Every person demolishing a structure or building in whole or in part, or removing a building from a site, shall comply with the following additional regulations:
 - (1) Any excavations or depressions remaining after the structure is removed or demolished shall be filled, compacted, and restored to the level of the adjacent ground.
 - (1)(2) All debris, including portions of the building or structure and contents, shall be removed from the site within 90 days from the date that the demolition/removal permit or building permit was issued, or 150 days if an extension has been granted in accordance with Section 129.0512.
 - (2)(3) Combustible material must be removed from the site as demolition proceeds.
 - (3)(4) Dry or dusty materials or debris must be wet down to allay the dust.
 - (4)(5) All glass must be removed from the building or structure before beginning demolition.
 - (5)(6) Street drainage, drainage structures, natural drainage, or diversion must not be obstructed.

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- (6)(7) Demolition work must not be done on public easements without permission.
- (7)(8) Notwithstanding plumbing code requirements for permits, all sewer, gas, and water connections must be capped and approval obtained from the Building Official prior to covering such connections. Sewer, gas, and water line capping shall be performed in the manner prescribed by the California Plumbing Code; such capping shall be located within 5 feet of the property line.
- (9) All damages or injuries arising from the demolition and associated work must be made good.
- (8) (10)Debris or other combustibles shall not be burned on the site without complying with Chapter 3 of the 2007 California Fire Code. A written burning permit shall be issued by the Fire Marshal of The City of San Diego.
- (9) (12)Electric or gas welding or gas cutting shall not be done on the site without complying with Chapter 26 of the 2007 California Fire Code. A written permit shall be issued by the Fire Marshal of The City of San Diego.
- (12)(10)Storm water Best Management Practices shall be in place at all times during the demolition as required by Municipal Code Section 43.0301.

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Art 05 Div 34: Additions and Modifications to Chapter 34 of the 2010 California Building Code

- 1. Delete code edition
- 2. Repeal the amendment in 145.3403 (a) [CBC Section 3403.5] since HCD's amendment in Section 3401.4.3 accomplishes the same thing. This section has existed for many code cycles and predates when the State started transcribing regulations from the Health and Safety Code into the CBC.
- 3. Repeal Section 145.3403 (b) [CBC Section 3403.6] since the CBC in Section 3403 addresses limited additions to existing structures without requiring full seismic evaluation. The CBC now has many tools that did not exist in the 1980's when the regulations for Live/work Quarters were developed to eliminate blight and to facilitate the rehabilitation of older buildings. This section has been rarely used and it is not possible to track recorded documents to require the reversion to the existing condition prior to the live-work conversion.

Article 5: Building Regulations

Division 34: Additions and Modifications to Chapter 34 of the

2007 California Building Code

§145.3401 Local Modifications and Additions to Chapter 34 "Existing Structures" of the 2007 California Building Code

- (a) Chapter 34 of the 2007 California Building Code has been adopted by reference with additions and modifications pursuant to Section 145.0106 of the Land Development Code.
- (b) Sections 3401 through 3402 and Section 3404 through 3406 and Section 3408 through 3410 have been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

§145.3401 Local Modifications and Additions to Chapter 34 "Existing Structures" of the 2007 California Building Code

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<u>Chapter 34 of the California Building Code has been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.</u>

§145.3403 Local Additions to Section 3403 "Additions, Alterations or Repairs" of the 2007 California Building Code

Sections 3403.5 and 3403.6 have been added as follows pursuant to Section 145.0106 of the Land Development Code:

- (a) 3403.5 Substandard. Alterations and repairs of existing buildings may allow for the replacement, retention, and extension of original materials and the continued use of original methods of construction, provided the building does not become or continue to be a "Substandard Building" as defined in California Health and Safety Code section 17920.3, the alterations or repairs do not adversely affect any structural member or any part of the building or structure having required fire resistance, and the alterations or repairs comply with California Health and Safety Code section 17958.8.
- (b) 3403.6 Live/Work. The addition of floors in existing buildings may be permitted if all of the following conditions are met to the satisfaction of the Building Official:
 - (1) The building must be used for "joint living and work quarters" ("live/work quarters") as defined in California Health and Safety Code section 17958.11, and the specific area of the floor addition shall be used only for living areas for live/work quarters.
 - (2) The floor area addition shall not exceed 10 percent of the existing building's floor area and shall be located entirely within the existing building.
 - (3) A report of structural survey shall be submitted to the Building Official establishing that the building with the proposed floor additions is not subject to any greater risk of earthquake damage than it would have been under a previously permitted use without the floor additions.

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- (4) The owner of the building, binding its successors in interest, agrees in writing on a form provided by the Building Official to not hold the City liable for the expense of any alterations completed pursuant to this section if the City later determines that a general structural reinforcement of the building is required. The agreement shall be recorded with the County Recorder.
- (5) The owner of the building, binding its successors in interest, agrees in writing on a form provided by the Building Official to remove all floors that have been added pursuant to this section if the building ceases to be used for live/work purposes. The agreement shall be recorded with the County Recorder.

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Art 05 Div 35: Additions and Modifications to Chapter 35 of the 2010 California Building Code

Delete code edition.

Article 5: Building Regulations

Division 35: Additions and Modifications to Chapter 35 of the

2007 California Building Code

§145.3501 Local Modifications and Additions to Chapter 35 "Referenced Standards" of the 2007 California Building Code

Chapter 35 of the 2007 California Building Code has been adopted by reference without change pursuant to Section 145.0103 of the Land Development Code.

2010 California Building Code - Building Regulations

Art 05 Div 36: Additions and Modifications to Appendix Chapters of the 2010 California Building Code

Delete code edition. See grading items in separate package of 2010 CBC and SDMC grading code changes. No appendix chapters other than Appendix Chapter J, Grading, are proposed to be amended.

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Art 05 Div 37: Additional Building Regulations for Archaic Materials and Methods of Construction (Updated)

- 1 Update code edition.
- 2 Update Section 145.3709 (d) for consistency with the proposed action on Section 121.0403 presented in the construction Permit Administrative Regulations package. URM buildings cannot be shown to comply with most prevailing edition of the code for new buildings. California Existing Building Code requirements recognize that archaic materials such as unreinforced masonry bearing wall construction do not provide the same ductility as building materials for new buildings when the building materials resist lateral seismic forces.

§145.3704 Definitions for this Division Only

The following definitions apply to this division:

Definitions preceding the following definition not changed.

California Building Code (CBC) shall mean the 2010 California Building Code, California Code of Regulations Title 24, Part 2 as published by the California Building Standards Commission and as adopted and amended by the City of San Diego.

California Existing Building Code (CEBC) shall mean the 2007–2010 California Existing Building Code, California Code of Regulations Title 24, Part 10 as published by the California Building Standards Commission.

Definitions preceding the following definition not changed.

Essential Facility means any building or structure classified in Occupancy Category IV in accordance with Table 1604.5 of the 2007_2010_California Building Code.

Definitions preceding the following definition not changed.

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Hazardous Facility means any building or structure containing hazardous materials and classified in Occupancy Category III when assigned to Seismic Design Category C, D, or E in accordance with Table 1604.5 of the 2007–2010 California Building Code.

Remainder of Section not changed.

§145.3705 General Regulations for Archaic Materials and Methods of Construction

- (a) When structural seismic upgrading is required or is being voluntarily provided, the building elements regulated by this division shall be those listed in Table No. A1-A of the 2007-California Existing Building Code.
- (b) In addition to the requirements set forth in this division, the provisions of the 2007-California Building Code, Chapter 34, shall also apply to alterations or additions made to buildings within the scope of this division.

Subsection (c) not changed

- (d) Except as specifically provided for by 2007-California Building Code,
 Chapter 34, alterations performed solely to achieve compliance with the
 requirements of this division, or the value of such alterations, or both,
 shall not subject the owner to compliance with other provisions of the San
 Diego Municipal Code, such as Section 142.0610.
- (e) For archaic material design values, refer to Sections A103 through A114 of the 2007-California Existing Building Code, including all tables and figures.
- (f) The technical provisions established by Section 145.3705(e) shall not apply to the strengthening of buildings or structures classified as Hazardous Facilities in Occupancy Category III when assigned to Seismic Design Category C, D, or E or buildings or structures classified as

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classified as Essential Facilities in Occupancy Category IV in accordance with Table 1604.5 of the 2007-California Building Code. For required regulations refer to Section 145.3706.

(g) Methods of analysis and design, the design values themselves, and the materials and methods of construction must be in accordance with the 2007-California Building Code and the 2007-California Existing Building Code, except as modified by this division.

Subsection (h) no change.

§145.3706 Regulations for Essential or Hazardous Facilities

- (a) The following buildings or structures shall be strengthened to meet the requirements of the 2007-California Building Code for new buildings in the same occupancy category or other such criteria that have been established by this jurisdiction.
 - (1) Buildings containing hazardous materials in Occupancy Category III when assigned to Seismic Design Category C, D, or E in accordance with Table 1604.5 of the 2007-California Building Code; or
 - (2) Essential facilities in Occupancy Category IV in accordance with Table 1604.5 of the 2007-California Building Code.
- (b) The Building Official may serve an order to comply with this division in accordance with Sections 145.3713, 145.3714, and 145.3715.
- (c) The order shall require preparation of a Structural Survey and Engineering Report of the building to be completed in accordance with Sections 145.3718, 145.3719, 145.3720, and 145.3721.

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- (d) If the Structural Survey and Engineering Report shows that the building meets the requirements of the State Historical Building Code California Historical Building Code, if applicable, or the 2007-California Building Code as adopted by the City for new buildings of the same occupancy category, no further action is required.
- (e) If it does not, the owner shall prepare and submit a Retrofit Guideline Document to the Building Official, in accordance with the provisions of Section 145.3724.
- (f) The owner shall either demolish or strengthen the building to meet the technical provisions of the Retrofit Guideline Document within 5 years from the date of service of the order.

§145.3707 Regulations for Remodels Exceeding 100 Percent of Valuation

Subsection (a) through (c) no change.

(d) If the Structural Survey and Engineering Report shows that the building meets the requirements of the State Historical Building Code, if applicable, or the 2007-California Building Code for new buildings of the same occupancy category, no further action is required.

Remainder of section no change.

§145.3708 Regulations for Change to a Higher Hazard Category

Subsection (a) through (e) no change.

(f) If the Structural Survey and Engineering Report shows that the building meets the requirements of the State Historical Building Code, if

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applicable, or the 2007-California Building Code for new buildings of the same occupancy category, no further action is required.

§145.3709 Regulations for Unsafe Buildings Within the Scope of this Division

Subsection (a) through (c) no change

(d) If the Structural Survey and Engineering Report shows that the building meets the requirements of the State Historical Building Code California <u>Historical Building Code</u>, if applicable, or the 2007-California Building Code for new buildings of the same occupancy category, no further action is required.

§145.3710 Regulations for Wall Anchorage and Parapet Bracing

Subsection (a), and item (1) in the sub-section no change.

(2) Relative Height. Where the parapets and other External Hazards or exterior wall or roof appendages that extend above the lower of either the level of the closest adjacent roof-to-wall anchors or the roof sheathing do not meet the requirements of Sections A113.1 and A113.6 of the 2007 California Existing Building Code.

Subsection (b) through (c), no change.

(d) The removal, stabilization, and bracing process shall include the provision of roof-to-wall anchors around the perimeter of the entire building.

Existing roof-to-wall anchors must meet, or shall be upgraded to meet, the minimum requirements of Section A113.1 of the 2007-California Existing Building Code, or new anchors meeting the minimum requirements of Section A113.1 shall be installed.

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Remainder of Section no change.

§145.3711 Regulations for Remodels over 50 Percent of Building Value

Subsection (a) no change.

(b) The owner of a building regulated by this section shall, within 5 years after the Date of Service of an order to comply, provide floor-to-wall and roof-to-wall anchors around the perimeter of the entire building. Existing floor-to-wall and roof-to-wall anchors must meet, or shall be upgraded to meet, the minimum requirements of Section A113.1 of the 2007 California Existing Building Code, or new anchors meeting those requirements shall be installed.

Remainder of Section no change.

§145.3712 Regulations for Historical Buildings Within the Scope of this Division

- (a) Historical Buildings or structures as defined by Section 145.3704 shall comply with the minimum structural provisions of the State Historical Building Code California Historical Building Code (SHBC), Title 24, Part 8, California Code of Regulations. Provisions found within the State Historical Building Code California Historical Building Code for the seismic strengthening of Qualified Historical Buildings may be used to comply with this division.
- (b) Strength Values for existing materials are given in Table A1-D and for new materials in Table A1-E of the 2007-California Existing Building Code. Strength Values for new materials not specified in the 2007 California Building Code or Table No. A1-E of the 2007 California Existing Building Code may be based on substantiating research data or engineering judgment, subject to the approval of the Building Official.

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§145.3715 Contents of Order to Comply

The order shall reference this division which references Sections A102 through A114 of the 2007 California Existing Building Code, which set forth the owner's alternatives and time limits for compliance. The order shall specify that the Building Official has determined that the building is within the scope of this division and one of the following conditions applies:

§145.3724 Regulations for Buildings of Archaic Unreinforced Masonry

Subsection (a) no change.

- (b) A qualified Historical Building may comply with the State Historical Building Code California Historical Building Code in order to fulfill the requirements of this section.
- (c) Existing or re-erected walls of unburned clay, adobe, or stone masonry construction shall conform to the following:
 - (1) Walls of unreinforced unburned clay, adobe, or stone masonry shall not exceed the height or length-to-thickness ratio specified in Table No. A1-G of the-2007 California Existing Building Code.

 The walls shall be provided with a reinforced concrete bond beam at the top that interconnects all walls. The bond beam shall have a minimum depth of 6 inches. The bond beam may have a width equal to the width of the wall less 8 inches, provided the resulting width is not less than 8 inches. Bond beams of other materials or seismic retrofit designs may be used with the approval of the Building Official.

Item 2 no change

(3) New or existing unstabilized brick and adobe brick masonry shall test to 75 percent of the compressive strength required of new materials by the 2007-California Building Code. Unstabilized brick shall only be used where existing brick is unstabilized and Doc date 9/23/10

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where the building is not susceptible to flooding conditions or direct exposure. Adobe may be allowed a maximum value of 9 pounds per square inch for shear unless higher values are justified by test.

Item 4 no change

(5) Strength values for existing and new materials as specified in the 2007 California Existing Building Code. Strength values for existing materials are provided in Table A1-D and for new materials in Table A1-E of the 2007 California Existing Building Code. Strength values for new materials not specified in the 2007 California Building Code or Table No. A1-E of the 2007 California Existing Building Code shall be based on substantiating research data or engineering judgment, with the approval of the Building Official.

§145.3725 Alternate Materials, Designs, and Methods of Construction

(a) Methods of analysis and design, the design values themselves, and the materials and methods of construction must be in accordance with the 2007 California Building Code, except as modified by this division.

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Art 05 Div 38: This Division is not used

The local wildland urban interface building standards were repealed from this division upon adoption and implementation of chapter 7A with local amendments.

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Art05 Div39: Automated External Defibrillators

No changes required.

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Art05 Div 40: Voluntary Accessibility Program

No changes required.